



Beaver Brook Park Master Plan

PREPARED FOR
Town of Wethersfield, CT

PREPARED BY
 *Vanasse Hangen Brustlin, Inc.*

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Project Overview

The Town of Wethersfield has a great resource within its community, Beaver Brook, a narrow stream corridor that runs parallel to the commercialized Silas Deane Highway and adjacent to the Wethersfield Historic District. In 1969, the Town of Wethersfield, acting through the Wethersfield Conservation Commission, completed a Beaver Brook Linear Park Master Plan that included recommendations for a number of improvements intended to transform this stream and adjacent corridor into a pleasant linear park and valuable open space resource for the community. However, these improvements were never implemented.

In 2008, the Wethersfield Town Council, again acting through the Wethersfield Conservation Commission, asked that the 1969 Master Plan be reviewed based on current site conditions and updated to discuss the feasibility of implementing the recommended improvements. This review, summarized in this report, concluded that in the last 40 years land uses along the Brook have changed, the condition of the Brook itself has changed, and environmental regulations regarding development within wetlands and floodplains have changed. However, even though conditions and regulations have changed, this analysis concluded that it is still feasible to develop a valuable and enjoyable passive park along this stream corridor, but not to the full extent recommended in the 1969 Master Plan.

This summary report and the associated maps and plans describe existing conditions and realistic improvements that can be made to the Park today that are consistent with the 1969 Master Plan.

Project Scope

To complete this study, the Town of Wethersfield hired the firm of Vanasse Hangen Brustlin (VHB) to review the prior master plan, complete an assessment of existing conditions and determine what park improvements would still be feasible. To complete this assignment, VHB completed the following tasks:

- Attended Kick-Off meeting with Town officials from DPW and the Parks Department to collect and review all available information about Beaver Brook, adjacent projects and discuss project goals.
- Due Diligence

- Conducted a complete site walk of the project area to assess existing conditions and complete a photo inventory of the stream corridor (Existing Conditions Photo sheets attached for the Northern and Southern Sections)
 - Evaluated current inland wetlands that may impact project implementation using available maps and plans, as well site observations, (Figure 1)
 - Performed a flood plain analysis based on available maps (Figure 1)
 - Reviewed 1969 Master Plan for consistency with the Wethersfield Conservation and Development Plan (2000)
 - Researched available information regarding environmental assessment/site clean-up issues associated with the project area.
- Land Use Assessment and Site Analysis
 - Documented current land use and land ownership to determine how these changes would impact the implementation of the 1969 Master Plan, (Figure 2)
 - Perform a Site Analysis to evaluate current conditions that would impact and enhance park development, such as:
 - Views to and from Beaver Brook Park
 - Existing uses adjacent to the proposed park and potential linkages to appropriate land uses
 - Ecological values along the stream corridor that need to be preserved and/or enhanced
 - Linkages to Silas Deane Highway and to the Historic District
 - Linkages to Town resources such as Town Hall, the Meadows Conservation Area, Heritage Bike Trail, other parks and similar destinations
 - The existence or creation of community “Gateways” where primary streets cross the Beaver Brook corridor
- Re-Visioning the 1969 Master Plan
 - Based on the tasks completed above and input from Town Boards, Commissions and staff, VHB prepared an updated master plan graphic (Figure 3) and program elements for the proposed Beaver Brook Park that included the following elements.
 - Recommended Park elements such as trail alignments, boardwalks, site furnishings, signage, overlooks, etc.
 - Recommended corridor enhancements such as vegetation management, stormwater improvements, access improvements, linkages to key features and destinations
- Public Meeting
 - VHB presented the results of the feasibility study and updated master plan recommendations at a Town Council meeting where additional input was provided regarding master plan elements.

Site Analysis Results

- General Conditions
 - The Beaver Brook corridor is bounded on the west by mainly commercial development along the Silas Deane Highway. Residential uses dominate the land uses along the east side. These residential uses are located within the Wethersfield Historic District.
 - An old railroad line, which is still used on occasion, runs parallel to Beaver Brook, and at times is along the west edge of the corridor, then bisects the corridor, then forms the eastern edge.
 - Overhead electrical utility lines also run along the most of the eastern edge of the corridor.
 - Portions of the corridor include publically owned land, mainly in the southern sections between Main and Maple Street, and another in the northern section behind the Police Station. (Figure 2)
 - The “Great Meadow”, a publically owned open space resource, is located to the south of Beaver Brook, just across Maple Street (Route 3).
 - Other sections of the corridor are in private ownership, and most of this privately owned land is developed. Therefore, acquisition to create a continuous publically owned greenway would be expensive. Easements may be possible to provide off-road trail connections.
 - The rear portions of some parcels are un-developed where they are closest to the wetland resource areas. Acquisition of portions of parcels, which could never be developed due to wetland protection regulations, should be explored if such land will help create a continuous and accessible greenway along Beaver Brook.
 - Easements through privately owned land are another option to provide off-road trail connections.

- Environmental Conditions
 - The entire Beaver Brook corridor is considered a wetland resource area. (Figure 1) Though exact wetland limits were not mapped for this study, the wetland areas are quite extensive. Therefore, any improvements would be subject to the approval of the Inland Wetland Commission.
 - Current flood plain maps show that most of the Beaver Brook Park area is within a 100 Year Flood Zone. (Figure 1) Therefore, any improvements that add structures of fill into the flood zone would be subject to regulatory review and approval.

- Land Use and Visual Assessment
 - The Beaver Brook corridor provides a valuable buffer between the commercial activity along Silas Deane Highway and the residential uses found in the valuable Historic District.

- The proposed park would be easily accessible from both commercial property along Silas Deane as well as the residential uses in the Historic District. Linkages to these two areas should be encouraged and enhanced.
- Gateway treatment should be developed where key streets cross the corridor, such as Broad Street, Main Street and Church Street. These gateways should draw attention to Beaver Brook as well as announce the transition between the Historic District and commercial corridor.
- There are limited views into Beaver Brook from abutting streets. Some of the views are quite attractive; other views can be enhanced with vegetation management, removal of invasive species and general clean-up of the area.
- The Beaver Brook Park should be linked, via on-road trails, to some valuable adjacent uses, such as Town Hall, the Meadows Conservation Area, Heritage Bike Trail, other parks and similar destinations

Master Plan Recommendations

As a result of the site analysis and review of the previous master plan recommendations, it was determined that the Beaver Brook Park is a tremendous resource and asset for the community and it has the potential to become a greater asset and passive recreational facility with key improvements. There are many elements from the original 1969 Beaver Brook Linear Park Master Plan that can be implemented including passive recreational improvements primarily on some of the town-owned land along the southern section of the park. However, land that was previously undeveloped in 1969 and had the potential to be acquired as park land has been developed for commercial and residential uses, making acquisition and development unrealistic in those areas.

Initial improvements should focus on two main goals, ecological improvements to enhance vegetation and water quality in and along Beaver Brook, and passive recreation improvements at key locations to draw attention to the park and the Beaver Brook system and invite the public to use this valuable community resource.

Specific recommendations for park development follow.

- Initial phases of park improvements should focus on Town-Owned property and the southern section of the park area, and the Phase One project should occur in the Spring Street area, which is highly visible and will draw attention to this community resource. In general, any recommended actions and improvements requiring land acquisition or easements should occur in later phases.

- A major element of the master plan is the development of an integrated trail system providing continuous off-road trail connections along the entire corridor. However, many off-road connections will require land acquisition and/or easement through private property. Therefore, the initial trail system, as shown on Figure 3 as both blue and red trails, will include on-road connections initially until permanent easements or land acquisition can occur. Site furnishing and interpretive panels should be located along the trail system as appropriate. Trail spurs connecting the park to Silas Deane Highway are shown at a few key points.

- Other general improvements to be implemented along the entire Beaver Brook Park corridor include:
 - the removal of invasive vegetation species,
 - improvement of water quality within the brook through stormwater management improvements along the brook and dredging at certain locations within the brook,
 - improvement of the drainage systems in neighboring streets that are conveying stormwater into the brook,
 - overlooks, interpretive panels, and educational elements that can highlight this valuable ecological resource, but with minimal visual impact to the park area.

- Phase One improvements should occur in the Spring Street area where the Town owns property and the physical improvements will be highly visible and accessible to the public. Recommended improvements here include benches, a viewing deck, landscaping, walkways, improvements to the roadway “triangle” and other improvements to promote passive recreational use, such as bird watching, nature education and active recreation in the form of ice skating. Other Phase One improvements should focus on watershed and water quality improvements, such as removal of invasive plant species, improving water flow and quality, trash removal and general clean-up of the area.

- The Town should initiate a vegetation management plan, a dam evaluation and a pond dredging study to help guide improvements in the Spring Street Pond area. The vegetation management plan should address the removal of invasive species, the introduction of appropriate native species, and long-term management to minimize the return of invasive species into the area. This long-term management could involve the community volunteers such as “Friends of Beaver Brook” group, or similar group.

- The plan recommends the addition of “Gateway” elements where the park crosses Broad, Main and Church streets to highlight the park and entry into the Historic District when traveling east, and the Silas Deane commercial area when traveling west.
- Improvements to Beaver Brook Park should be tied to economic development initiatives along Silas Deane Highway where appropriate.

Potential Funding Sources

At the present time, there are a limited number of state and federal programs that are potential funding sources for many of the improvements recommended for the Beaver Brook Park project. Following is a summary of some of the more applicable funding programs.

FEDERAL FUNDING OPPORTUNITIES

Transportation Enhancement Funds SAFETEA-LU (TE)

From Federal Highway Administration (FHWA).

Federal Highway Administration (FHWA) funds are available for Transportation Enhancement (TE) projects through the Connecticut Department of Transportation (ConnDOT) to pay for items not covered by traditional transportation funds. Trail and bikeway improvements can be funded under this program, but funding is not guaranteed as projects are evaluated and ranked against competing communities. Some potential qualifying Transportation Enhancement (TE) activities applicable to the trail include:

- Provision of facilities for pedestrians and bicycles.
- Provision of safety and educational activities for pedestrians and bicyclists.
- Acquisition of scenic easements and scenic or historic sites.
- Landscaping and other scenic beautification.
- Rehabilitation and operation of historic transportation buildings, structures, or facilities (including historic railroad facilities)
- Inventory, control, and removal of outdoor advertising.
- Environmental mitigation

The funds can also be used for amenities such as lights, benches, bollards, bike racks, etc.

More information is available at: <http://www.fhwa.dot.gov/environment/te/guidance.htm>

Preserve America Grants

From Federal National Park Service (NPS)

Preserve America grants are designed to support a variety of activities related to heritage tourism and innovative approaches to the use of historic properties as educational and economic assets. These grants are intended to fund research and documentation, interpretation and education, planning, marketing, and training. Wayfinding signage, interpretive panels and trail planning may be eligible activities under this program.

Eligible recipients for these matching (50/50) grants include State Historic Preservation Officers, Tribal Historic Preservation Officers, designated Preserve America Communities, and Certified Local Governments that are applying for Preserve America Community designation. Individual grants range from \$20,000 to \$150,000.

Further information on the application process and other details of the Preserve America grants program may be found at the National Park Service Web site.

Currently, the Preserve America initiative also offers technical and financial assistance from federal agencies that can be used to:

- bolster local heritage preservation efforts;
- support better integration of heritage preservation and economic development; and
- foster and enhance intergovernmental and public-private partnerships to accomplish these goals.

319 Nonpoint Source Program for Stormwater Enhancement - Demonstration Grant

Federal Environmental Protection Agency (EPA)

Congress amended the Clean Water Act (CWA) in 1987 to establish the section 319 Nonpoint Point Source (NPS) Management Program. This program funds activities to improve water quality. Since 1990, EPA Regional offices have funded projects under section 319(h) to supplement States' ongoing NPS management programs. As of the end of fiscal year 1996, EPA has awarded about \$470 million nationwide in grants to States to implement NPS management programs. These funds support a wide variety of activities including non-regulatory or regulatory programs for enforcement, technical assistance, financial assistance, education, training, technology transfer, demonstration projects, and monitoring to assess the success of specific NPS implementation projects. The Beaver Brook project could qualify as a demonstration project to improve stormwater management around Beaver Brook and water quality with Beaver Brook. For example, a portion of the section 319 grant funds have been used by States to support implementation of NPS controls in urban watersheds and to monitor the effectiveness of such controls.

STATE FUNDING OPPORTUNITIES:

Connecticut Open Space and Watershed Land Acquisition Grant Program

Grants may be for the purchase of land that is:

- Valuable for recreation, forestry, fishing, conservation of wildlife or natural resources;
- A prime natural feature of the state's landscape;
- Habitat for native plant or animal species listed as threatened, endangered or of special concern;
- A relatively undisturbed outstanding example of a native ecological community which is uncommon;
- Important for enhancing and conserving water quality;
- Valuable for preserving local agricultural heritage; or
- Eligible to be classified as Class I or Class II watershed land (Water Companies only).

Additional Information

Eligible Parties: Municipalities, nonprofit land conservation organizations and Water Companies.

Availability: Twice per year if funds available.

Range of Awards: Awards not to exceed 40-60% of fair market value (depending on project type (in dollars) & applicant category).

Agency Contact:

Phone:

TOWN FUNDING OPPORTUNITIES:

Bonds – The Town could decide to take out a bond for some of the improvements, although this option should only be considered after other funding sources are exhausted.

PRIVATE FUNDING OPPORTUNITIES:

- Mitigation Funds – Funding or in-kind services donated from developers who are constructing improvements on or near the trail.
- Private Foundations/Donors – Funding from these types of donors is more readily available in more urban/highly developed areas, but may be available for some items such as benches, bike racks, kiosks, interpretive signage, tree plantings, etc. One way to minimize maintenance costs for landscaped areas would be to have them be taken care of by a local landscaper in exchange for a small sign advertising their business.
- Local Utilities –Discussions should be conducted with the departments/companies responsible for these utilities to see if some of the funding might come from, or through them for items such as lights and electrical service.
- Non Governmental Organization Protection (NGO Protection)-One example of this type of program is The Trustees of Reservations who offer a Conservation Buyer Program. This program has been used for many years by conservation organizations across the country as a way to protect properties in private ownership. By informing conservation-minded buyers ("conservation buyers") about available properties with scenic, historic, agricultural, or ecological values, organizations like The Trustees of Reservations can help conservation buyers acquire such properties and, at the same time, ensure their long-term protection. The Trustees may also assist landowners to protect their land for conservation in perpetuity.

For more information on The Trustees of Reservation Conservation Buyers Program go to http://www.thetrustees.org/pages/47_conservation_buyer_program.cfm

ADDITIONAL FUNDING OPPORTUNITIES:

- Establish a “Friends Group” to help with volunteer efforts to improve and maintain park elements and hold fund-raising activities.
- Promote adopting a space or section of trail to local businesses
- Allow and promote children's and family events to draw in users and help raise money
- Involve local service groups to assist with trail maintenance
- Invite politicians and investors to tour the trail to build support



FIGURE 1: ECOLOGICAL FEATURES
Beaver Brook Park
Wethersfield, Connecticut



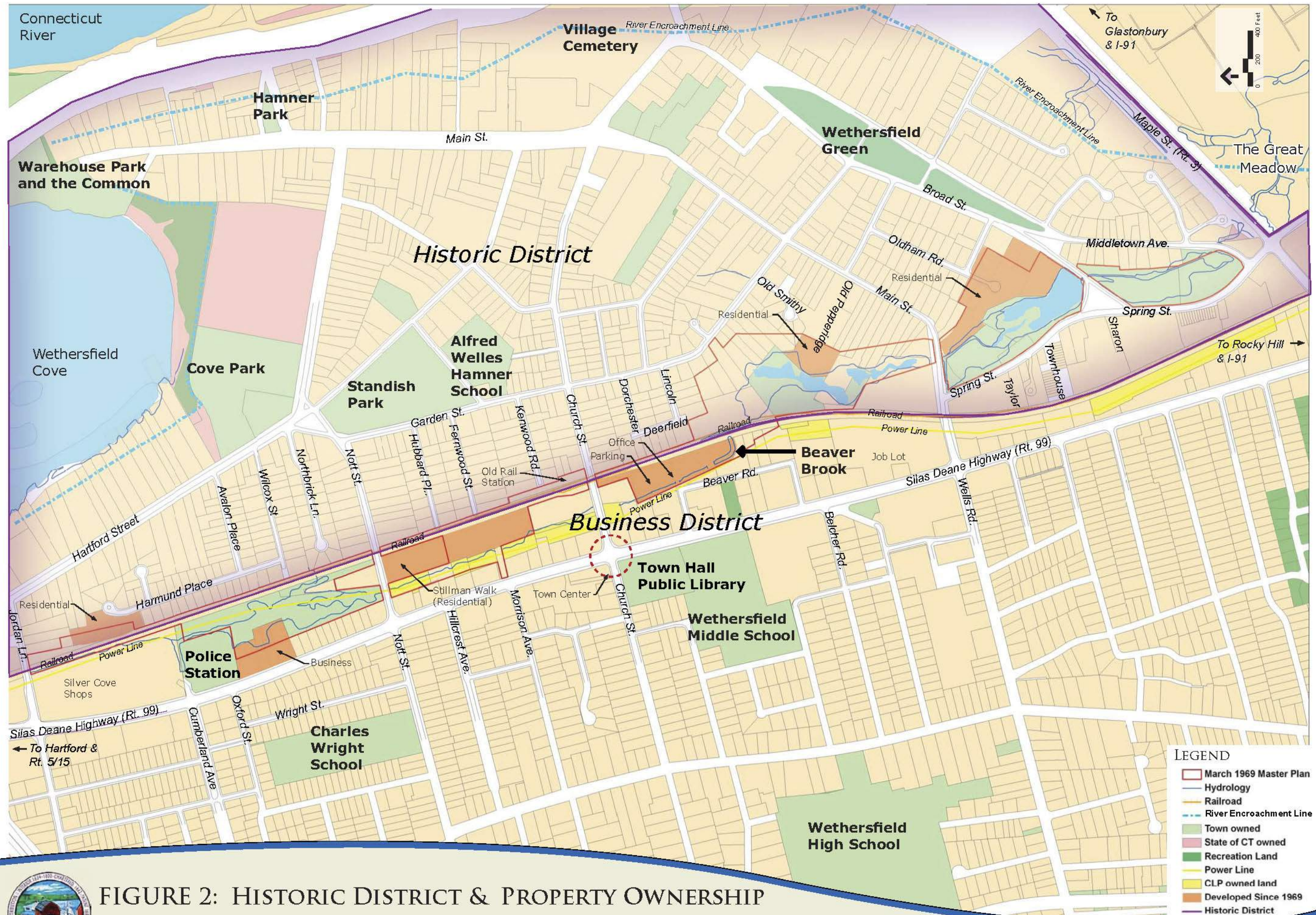


FIGURE 2: HISTORIC DISTRICT & PROPERTY OWNERSHIP

Beaver Brook Park
Wethersfield, Connecticut





- General Recommendations**
- Prioritize southern half of corridor
 - Conduct vegetation evaluation
 - Prepare and implement a Vegetation Management Plan for the entire Beaver Brook corridor and include removal of invasive plant species
 - Evaluate Spring St. pond conditions and dredging needs
 - Consider improvements to support passive recreation such as bird watching and environmental education

FIGURE 3: MASTER PLAN UPDATE RECOMMENDATIONS
Beaver Brook Park
Wethersfield, Connecticut



North End of Corridor



Nott St



Power lines at Church Street



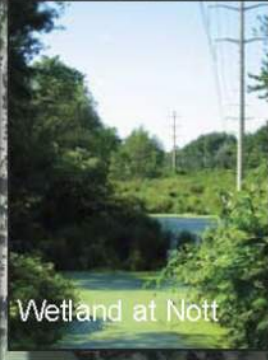
Old Depot at Church St



The Great Meadow



North End of Corridor



Wetland at Nott



Central Wetland from Railroad



GARDEN ST



Beaver Rd.



Police Station



Stillman Walk



Town Center



EXISTING CONDITIONS PHOTOS NORTHERN SECTION **Beaver Brook Park** Wethersfield, Connecticut



Wethersfield Green



Maple Ave.



Historic District



Wells Rd. Construction Yard



Brook at Main St.



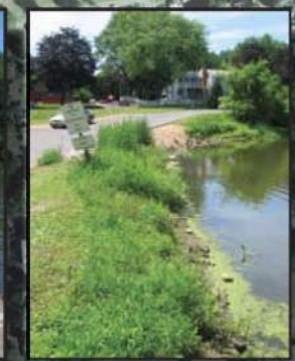
Wetland at Main St.



Middletown Ave.



Spring Street Pond



Wetlands at Middletown Ave.



Overlook at The Great Meadow



EXISTING CONDITIONS PHOTOS SOUTHERN SECTION **Beaver Brook Park** Wethersfield, Connecticut